

## CLAIMS:

1. A particle-optical apparatus which includes
- \* a particle source for producing a primary beam (22) of electrically charged particles which travel along an optical axis (4) of the apparatus,
  - \* a specimen holder for a specimen (18) to be irradiated by means of the
- 5 apparatus,
- \* a focusing device (14, 16) for forming a focus of the primary beam in the vicinity of the specimen holder by means of electrostatic electrodes,
  - \* detection means (6) for detecting electrically charged particles emanating from the specimen in response to the incidence of the primary beam, which detection means are
- 10 arranged ahead of the focusing device, viewed in the propagation direction of the electrically charged particles in the primary beam,
- \* and an electrostatic final electrode which is arranged directly ahead of the specimen holder, viewed in the propagation direction of the electrically charged particles in the primary beam, characterized in that
- 15 the apparatus is provided with power supply means (28) for adjusting a potential difference between the specimen (18) to be irradiated by means of the apparatus and the final electrode.
2. A particle-optical apparatus as claimed in claim 1, in which the final electrode
- 20 is formed by the electrode (16) of the focusing device (14, 16) which is situated nearest to the specimen holder.
3. A particle-optical apparatus as claimed in claim 1, in which the final electrode
- 25 is formed by an electrode (42) which is situated between the electrode (16) of the focusing device (14, 16) that is nearest to the specimen holder and the specimen holder, said electrode (42) being rotationally symmetrical around the optical axis (4).

4. A particle-optical apparatus as claimed in claim 2 or 3, in which the final electrode (42) is symmetrically subdivided into a number of electrically isolated segments around the optical axis (4).

- 5 5. A particle-optical apparatus as claimed in claim 1, in which the final electrode is formed by an electrode (40) which is situated between the electrode (16) of the focusing device (14, 16) that is nearest to the specimen holder and the specimen holder (18), said final electrode (40) being situated completely to one side of the optical axis (4).

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